

REMARKS

This Reply to Office Action is responsive to the Office Action mailed on January 31, 2003. Claims 1-10 are pending in the present Application. Applicants have amended claims 1-3 and 7-9, and added claim 11. Accordingly, claims 1-11 are now at issue. Applicants' undersigned attorney appreciates the courtesies extended by Examiner Brittain during the interview on May 6, 2003.

With this Reply, Applicants submit a Petition for a One-Month Extension of Time, making Applicants' Reply due on or before June 2, 2003. Accordingly, Applicants' Reply is timely filed.

The Examiner rejected claims 1, 4-7 and 10 under § 102(b) as being anticipated by *Wells* (U.S. 3,717,906), *Munch* (U.S. 4,214,349) and *Bingold* (U.S. 5,157,728). The Examiner also rejected claims 1 and 4 under § 102(b) as being anticipated by *Koike* (U.S. 5,584,452). The Examiner further rejected claims 2 and 3 under § 103(a) as being unpatentable over *Koike*, and claims 5-10 as being unpatentable over *Koike* in view of *Wells*. Applicants submit that the present invention is patentable over the cited prior art.

Independent claim 1 is directed to a strap body having a first end and a second end opposite the first end. As shown in FIG. 5, the strap body includes a first group of teeth having peaks at a first predetermined height and a second group of teeth having peaks at a second predetermined height. The second predetermined height is greater than the first predetermined height. As further shown in FIG. 10, the first group of teeth are closer than the second group of teeth to the first end of the strap body.

Claim 1, as amended, recites "wherein the locking head has a locking wedge including an engagement surface, whereby after the engagement surface is worn, the

difference between the first predetermined height and the second predetermined height allows the engagement surface to pivot down into engagement with the first group of teeth.” As discussed with Examiner Brittain during the interview on May 6th, and as shown in FIG. 10, the difference between the first predetermined height and the second predetermined height allows the elongated first tooth 64 to pivot down into engagement with the first group of teeth and, thus, secures the locking wedge 62 within the strap body teeth.

As described in the background of the invention, the present invention improves engagement between the locking wedge and the strap body at small bundle diameters. During rapid cable tie threading, the strap body teeth exert excessive force on the first tooth of the locking wedge. As a result, the first tooth becomes deformed and elongated. A strap body tooth adjacent the strap body tooth contacting the first tooth of the locking wedge may push the locking wedge out of engagement before the elongated wedge tooth can drop into engagement with the strap body teeth, as shown in the prior art of FIGS. 8 and 9. Specifically, as shown in FIG. 8, the wedge ramp 70 engages strap body tooth 36 adjacent strap body tooth 34. Strap body tooth 36 may push the locking wedge 62 out of engagement before the elongated wedge tooth 64 can drop into engagement with strap body tooth 34.

Conversely, as shown in the present invention in FIG. 10, during threading of the strap body 26 in the direction of the arrow, the elongated locking wedge tooth 64 contacts the peak of strap body tooth 38 at the second predetermined height, and then shifts or steps down to contact the peak of strap body tooth 40 at the first predetermined height as the cable tie 20 reaches a smaller bundled diameter. The step down in strap body teeth from the second predetermined height to the first predetermined height increases the distance between the wedge ramp 70 and the peaks of the strap body teeth. As shown in FIG. 11, this

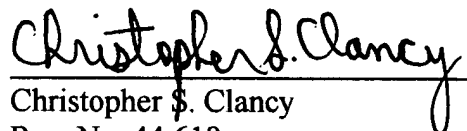
increased distance, or clearance, allows the locking wedge 62 to pivot further into engagement with strap body tooth 42 before contacting the peak of adjacent strap body tooth 44. Accordingly, Applicants submit that amended claim 1 is patentable over the cited prior art.

Claims 2 and 3 have been amended to conform with the language of amended claim 1, and claims 2-6 are asserted to be allowable based on their dependency from allowable claim 1.

For the reasons discussed above regarding independent claim 1, Applicants submit that independent claim 7, as amended, is patentable over the cited prior art. Claims 8 and 9 have been amended to conform with the language of amended claim 7, and claims 8-10 are asserted to be allowable based on their dependency from allowable claim 7. Further, for the reasons discussed above regarding independent claim 1, applicants submit that added claim 11 is patentable over the cited prior art.

In view of the above, Applicants submit that claims 1-11 are allowable and favorable reconsideration is respectfully requested.

Respectfully submitted,


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